IN THE CLAIMS:

1. (Currently amended) A recombinant receptor comprising:

~~a~~an extracellular ligand-binding domain of a receptor origin; and

a cytoplasmic binding domain of the receptor origin, wherein the cytoplasmic domain ~~that~~ comprises a heterologous bait polypeptide~~,~~ heterologous to the receptor;

wherein the activation of said recombinant receptor is inhibited by binding of a ~~prey polypeptide~~ fusion protein to said heterologous bait polypeptide, said fusion protein comprising a prey polypeptide and at least one of an inhibitor of the activation of said recombinant receptor and a recruitment site for the inhibitor of the activation of said recombinant receptor~~to said heterologous bait peptide~~.

2. (Original) The recombinant receptor of claim 1, wherein said recombinant receptor is a transmembrane receptor.

3. (Currently amended) The recombinant receptor of claim 1, wherein said recombinant receptor is activated by the addition of a compound that disrupts ~~the bait prey~~ an interaction between said heterologous bait polypeptide and said prey polypeptide.

4. (Previously presented) The recombinant receptor claim 1, wherein said recombinant receptor is a homomultimerizing receptor.

5. (Currently amended) The recombinant receptor of ~~claims~~ claim 1, wherein said recombinant receptor is a heteromultimerizing receptor.

6. (Currently amended) The recombinant receptor of claim 1, wherein the binding of said prey polypeptide depends upon ~~the~~ a modification state of said heterologous bait ~~peptide~~polypeptide.

7. (Currently amended) The recombinant receptor of claim 6 wherein the modification state ~~is~~comprises presence or absence of phosphorylation, acetylation, acylation, methylation, ubiquitinilation or glycosylation.

8. (Currently amended) The recombinant receptor of claim 6, wherein ~~the~~ a change of the modification state is dependent upon binding of a ligand to the extracellular ligand-binding domain.

9. (Withdrawn) A prey polypeptide comprising:

a polypeptide that interacts with a bait polypeptide and

a polypeptide comprising an inhibitor of activation of a receptor and/or a recruitment site for an inhibitor of activation of a receptor.

10. (Withdrawn) The prey polypeptide of claim 9, comprising:

a polypeptide that interacts with the heterologous bait polypeptide of a recombinant receptor comprising:

a ligand-binding domain and

a domain that comprises a heterologous bait polypeptide,

wherein the activation of said recombinant receptor is inhibited by binding of a prey polypeptide to said heterologous bait peptide and

a polypeptide comprising an inhibitor of a receptor.

11. (Previously presented) A vector encoding the recombinant receptor of claim 1.

12. (Withdrawn) A vector encoding the prey polypeptide of claim 9.

13. (Previously presented) A eukaryotic cell comprising the recombinant receptor of claim 1.

14. (Withdrawn) A eukaryotic cell comprising the prey polypeptide of claim 9.

15. (Currently amended) The eukaryotic cell of claim 13, where said eukaryotic cell is selected from the group consisting of a mammalian cell, a fungal cell, and a plant cell.

16. (Currently amended) A ~~kit, comprising a cloning~~ cloning vector encoding a recombinant receptor ~~allowing the construction of the vector of claim 11~~, comprising:

a nucleotide sequence encoding the cytoplasmic binding domain, wherein the nucleotide sequence comprises at least one restriction site configured to allow an in frame fusion of a nucleic acid sequence encoding said prey polypeptide, wherein insertion of the nucleic acid sequence encoding said prey polypeptide results in the vector of claim 11.

17. (Withdrawn) A method of screening compounds that disrupt compound-compound binding, said method comprising:

screening compounds with a recombinant receptor comprising:

a ligand-binding domain and

a domain that comprises a heterologous bait polypeptide,

wherein the activation of said recombinant receptor is inhibited by binding of a prey polypeptide to said heterologous bait peptide and/or a prey polypeptide comprising a polypeptide that interacts with a bait polypeptide and a polypeptide comprising an inhibitor of activation of a receptor and/or a recruitment site for an inhibitor of activation of a receptor.

18. (Withdrawn) The method according to claim 17, wherein said compound-compound binding is modification state dependent.

19. (Withdrawn) The method according to claim 18, wherein said modification is phosphorylation, acetylation, acylation, methylation, ubiquitinilation or glycosylation.

20. (Withdrawn) The method according to claim 17, wherein said binding is mediated by three or more partners.

21. (Withdrawn) The method according to claim 20, wherein at least one of the partners is not or not completely of proteinaceous nature.

22. (New) A recombinant transmembrane receptor, comprising:

a cytoplasmic domain comprising an intracellular domain, a bait polypeptide and an activation site, wherein an interaction of a prey polypeptide with the bait polypeptide prevents the activation site from activating the recombinant transmembrane receptor; and

an extracellular domain having a ligand binding domain, wherein binding of a ligand to the ligand binding domain activates the recombinant transmembrane upon disruption of the interaction between the prey polypeptide and the bait polypeptide;

wherein the bait polypeptide is heterologous to the intracellular domain.

23. (New) The vector of claim 11, further comprising a nucleotide sequence encoding the cytoplasmic binding domain, wherein the nucleotide sequence comprises at least one restriction site configured to allow an in frame fusion of a nucleic acid sequence encoding said prey polypeptide.